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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/138,339 08/21/98 PRYOR

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EXAMINER

NELSON, A

ART UNIT

PAPER NUMBER

2675

DATE MAILED:

03/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/138,339

Applicant(s)
Pryor

Examiner
Alecia Nelson

Group Art Unit
2675



☒ Responsive to communication(s) filed on Dec 21, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-5, 18-25, 27, 63, and 64 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-5, 18-25, 27, 63, and 64 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 9

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Information Disclosure Statement

1. The references listed in the Information Disclosure Statements submitted have been made of record and has been considered by the examiner (see attached PTO-1449).

Claim Objections

2. **Claims 29 and 30** are objected to because of the following informalities: The newly added claims should be renumbered as **claims 63 and 64**, respectively. Original **claims 29 and 30** were canceled by the Pre-Amendment filed 3/4/200, and newly added claims cannot have the claim number of a canceled claim. Also Newly added **claim 64** is dependent upon a canceled base claim. For rejection purposes, **claim 64** will depend from **claim 1**. Appropriate correction of these problems are required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. **Claims 1-5, 18-23, 27, 28, 63, and 64** are rejected under 35 U.S.C. 102(b) as being anticipated by Oh (U.S. Patent No. 5,616, 078).

With reference to **claims 1-5, 18-23, 27, 28, 63, and 64**, Oh teaches a motion controlled video entertainment system (1) is installed in a game compartment (2). The system (1) is provided with a motion capture unit or detector (3), a display device (4), loudspeakers (5, 5'), a control unit (6) and an input device (7). The system (1) comprises one or more datums (M) associated with a person (Q), the datums (M) being distinguishable in reflected light (see column 4, lines 50-58), at least two TV cameras having an output (see column 4, lines 19-28), means for determining (image processor 33), from said TV cameras outputs, the three dimensional position or orientation of the datums (see column 5, lines 11-23), means for creating (system control unit 6) on a display, a representation of at least one object, and means for modifying, manipulating, or positioning the at least one object representation on the display as a function of the position or orientation of the datums (see column 5, lines 59-65). With further reference to **claims 2, 3, 5, and 18-23**, Oh also teaches that in the case where the sets of markers (M) emit light by means of the visible radiation LED, the video cameras (31, 31') are a color video camera provided with an image sensor device such as CCDs. In the case where the set of markers (M) emit light by means of the infrared ray LED, an IR filter which cuts visible rays is provided on the surface of the optical lens of each camera so that the sets of markers (M) can be detected from the background of the camera image (see column 4, lines 59-column 5, lines 3). Also, with further reference to

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claim 22, Oh teaches the usage of audio output unit (68) which outputs the effect sounds to the loud speakers (5, 5') (see column 5, lines 65-67).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. ***Claims 24 and 25*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh as applied to **claim 1** above, and further in view of Naio et al. (U.S. Patent NO. 5,459,793).

Oh teaches everything that is required as explained above with reference to claim 1, however fail to teach that the datums are distinctive in color as well as shape.

Naio et al. teaches a motion analysis system, in which object (10) is to be analyzed by the usage of a color mark (12), a plurality of light sources (14), and a color TV camera (16). The color marker (12) is made of a colored paper so as to be able to distinguish it from the color of the black out curtain (22). The color marker (12) is attached to an arm, a knee, and the like for which motion analysis is required. The movement of the color marker (12) is detected by the

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color TV camera (16) (see column 3, lines 3-17). The color marker (12) is also formed by a spherical body or polygonal body and a high directivity light reflection member is attached to the surface (see column 4, lines 9-13).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the color and shape possibilities of the datums as taught by Naio et al. in a system such as that which is taught by Oh, this thereby provides an image processing system having an improved color marker having a simplified and low cost structure, also, enabling easy extraction of the particular color of the color marker and precise motion analysis of an object to be analyzed can be achieved.

Conclusion

Pertinent Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kumar et al. (U.S. Patent No. 6,147,678) teaches a video gesture-based three-dimensional computer interface system that uses images of hand gestures to control a computer by usage of at least two cameras connected to the computer.

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8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any response to this action should be mailed to: Commissioner of Patents and Trademarks Washington, D.C. 2023; or faxed to: (703) 308-9051, (for formal communications intended for entry) or: (703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT"). Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alecia D. Nelson whose telephone number is (703)305-0143 between the hours of 8:00 a.m and 5:00 p.m. on Monday-Friday.

If attempts to reach the above examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras, can be reached at (703)305-9720.

A handwritten signature in black ink, appearing to read 'Steven Saras', is positioned above the printed name and title.

STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

adn/ADN
March 7, 2001